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- (71) Applicant (for all designated States except US): UNI-VERSITY OF ROCHESTER MEDICAL CENTER [US/US]; 601 Elmwood Avenue, Box 706, Rochester, NY 14642 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): WOODS, James, R. [US/US]; 154 Clover Hills Drive, Rochester, NY 14618 (US). ANDERS, Marion, W. [US/US]; 69 Tobey Court, Pittsford, NY 14534 (US). XU, Lin [CA/US]; 259 Quinby Road, Rochester, NY 14623 (US).
- (74) Agent: GOLDBERG, Jules, E.; Reed Smith LLP, 599 Lexington Avenue, 29th Floor, New York, NY 10022 (US).

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(54) Title: METHOD FOR DETERMINATION OF LIKELIHOOD OF OCCURRENCE OF PRETERM LABOR IN PREGNANT FEMALES

(57) Abstract: The presence of 3-chlorotyrosine in vaginal secretions in a predictor of the likelihood preterm premature rupture of the fetal membranes, i.e., the chorioamnion and/or the occurrence of the risk of preterm labor. 3-chlorotyrosine is a marker for the excessive production of hypochlorous acid which causes focal areas of increased collagen destruction in the chorioamnion, preterm premature rupture of membranes, or increased production of postaglandin and preterm labor. The inventive method comprises determining the likelihood of the occurrence of preterm premature rupture of membranes or increased production of postaglandin and preterm labor in a pregnant female by obtaining a sample of the females vaginal secretions, and analyzing the secretions for the presence and amount of 3-chlorotyrosine in the sample. Various antibody-based tests can be used to measure 3-chlorotyrosine, and a number of neoantigens, useful in raising antibodies to 3-chlorotyrosine, are disclosed.